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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/621,527	07/21/2000	Mitsuhiko Inaguma	ADACHI P188USP1	4856

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EXAMINER

HOYE, MICHAEL W

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 05/21/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/621,527

Applicant(s)

INAGUMA ET AL

Examiner

Michael W. Hoye

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3,6 and 7 is/are rejected.
- 7) ☒ Claim(s) 2,4,5 and 8-24 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/507,712.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4,5,6.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/507,712, filed on 2/18/2000, now Patent Number 6,615,407. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 7/23/1999. It is noted, however, that applicant has not filed a certified copy of the Japan 11-209551 application as required by 35 U.S.C. 119(b).

Information Disclosure Statement

2. The information disclosure statement filed 10/23/00 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2614

4. Claims 1, 3 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langston et al (USPN 6,212,397), in view of Kumagai et al (USPN 5,548,811), in further view of Macdonald et al (USPN 5,835,128), all cited by the Examiner.

As to claim 1, the limitations recited in the preamble of the claim and later referenced are taught by the instant application as being known in the art. The instant application teaches that the “conventional known in-building CATV system” is known to comprise such an arrangement wherein a lead-in wire connects to the building and subsequently facilitates the transmittal of upward and downward signals from a subscriber terminal throughout the building (pg. 1, line 20 – pg. 4, line 14). As to the recited limitation that the aforementioned system further comprises an “up-converter” and a “down-converter”, it is well understood in the art that such a system would further comprise the use of such.

The Langston et al reference discloses a method and system for controlling remote multipoint stations, which utilizes “pilot signals”, that are used as reference signals and are broadcast from a base station to synchronize the frequency of the local oscillators (67 & 70) of the “down-converter” or receive section (53) and the “up-converter” or transmit section (54) as used with a point-to-multipoint broadcast system such as an in-building CATV system (see Abstract; col. 1, lines 32-43; col. 4, lines 58 – col. 5, line 62). In one embodiment of Langston, the system may further be utilized in an in-building CATV system as described in the preamble wherein it is further taught that the transmission means may utilized a “lead-in” wire or other know distribution means (col. 1, lines 32-43). Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize other know distribution configurations such as those disclosed as “conventional” in the instant application. However, the

Art Unit: 2614

Langston et al reference does not teach or fairly suggest a reference signal generator and transmission means that are located within the in-building CATV system. The Kumagai et al reference discloses a “first” and “second reference signal generation means” (10) such that when a pilot signal is not detected (40) a locally generated reference (20) is automatically utilized via the reference signal switching “selection means” (16) (see Figs. 5-6; col. 4, line 53 – col. 5, line 46 and col. 6, lines 1-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the AGC reference signal switching teachings of the Kumagai et al reference in conjunction with the AGC (69) of the Langston et al reference for the purposes of providing the means for providing precise frequency control even when a pilot signal is not obtained (Kumagai et al – col. 2, lines 65-67). One of ordinary skill in the art would have been led to make such a modification for the advantage of enabling the Langston et al embodiment to transmit upstream signals in the event of no pilot signal or pilot signal loss conditions.

Assuming arguendo regarding the application of the teachings of Langston et al in conjunction with an in-building distribution system described in the specification but not explicitly recited in the claims, note the Macdonald et al reference. The Macdonald et al reference teaches a technique for redistributing television signals to a multiplicity of receiver units within one or more multiple dwelling units (MDU's) (col. 3, lines 19-35). Accordingly, it would have been obvious to one of ordinary skill in the art to further distribute signals received by the roof assembly (50) or other means to multiple subscribers within the building as taught by Macdonald et al for the purpose of eliminating the need for the installation of separate antennas/receivers for each individual subscriber (Macdonald et al. – col. 2, lines 50-64).

Art Unit: 2614

As to claim 3, the Kumagai et al reference teaches that the reference signal generating means or reference oscillator in the frequency band of said downward signal based on the output from one of said oscillation circuit and the reference signal generating means (col. 5, lines 15-46). It is inherent or well known that the frequency of the reference signal does not overlap with said downward signal in order to avoid colliding with or interfering with the downward signal(s).

As to claim 6, the Examiner takes Official Notice that it is notoriously well known in the art of in-building CATV systems to have an upward signal with a low frequency which has not been frequency-converted by said up-converter can be directly transmitted to said lead-in wire for the advantage of connecting a CATV receiver directly to the transmission line since the signal does not need to be up-converted like the upstream signal of a cable modem. Therefore, it is submitted that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to have an upward signal with a low frequency which has not been frequency-converted by said up-converter can be directly transmitted to said lead-in wire for the advantage given above.

As to claim 7, the Macdonald et al reference teaches the use of a reception antenna 14 (Figs. 1 and 2) that is provided on said building and the signal is provided to terminals as described above in claim 1.

Allowable Subject Matter

5. Claims 2, 4-5, 8-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2614

The following is a statement of reasons for the indication of allowable subject matter:

As to claims 2, 4-5, and 10-15, the prior art, alone or in combination does not teach or fairly suggest that said reference signal generating means and said reference signal transmission means are provided in said down-converter; and that the frequency of the reference signal transmitted to said transmission line by said reference signal transmission means is set to a frequency lower than that of any of various transmission signals flowing upward and downward through said transmission line.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Baran et al (USPN 6,094,211) – Discloses an apparatus for blocking upstream ingress noise in a two-way cable system.

Chanteau (USPN 6,430,742) – Discloses a television signal distribution device for residential buildings.

Coutinho (USPN 5,760,822) – Discloses a method and device for use with a communication system having a single cable line containing externally transmitted data within a fixed frequency band for providing interaction between a transmitting terminal device and a receiving terminal device without disrupting the externally transmitted data.

Dinwiddie et al (USPN 6,481,013) – Discloses an apparatus for distributing radio frequency modulated broadcast television signals from a broadcast signal source

to networked appliances connected to the source through a plurality of single conductor coaxial cables.

Farber et al (USPN 6,486,907) – Discloses a satellite signal distribution system including a headend which distributes signals using a fiber optic network through a multi-dwelling unit.

Georges et al (USPN 5,765,099) – Discloses a system and method for transmitting a radio frequency signal in a RF bandwidth through an in-building system.

Green et al (USPN 5,073,930) – Discloses a television distribution system that includes a frequency agile satellite transponder down-converter for use in multiple dwelling units.

Hamlin (USPN 5,574,964) – Discloses a signal distribution system having a converter with input terminals for receiving signals of varying configurations and an output terminal for transmitting converted signals.

Hemmie et al. (USPN 5,437,052) – Discloses an integrated bi-directional converter connected to an antenna for receiving MMDS programming for receiving information/data signals from a set top for retransmission.

Krimmel (USPN 6,006,066) – Discloses a transmission system with a number of tap devices to reduce the effects of interference.

Nakagawara (USPN 6,181,365) – Discloses an RF output device for CATV processing having a switch provided on the upstream line in a cable modem to reduce signal leakage.

Art Unit: 2614

Nicholson (RE 31,639) – Discloses a two-way cable television broadcasting system with each subscriber drop being assigned its own specific allocated band of frequencies.

Saul (USPN 5,230,086) – Discloses a system comprising a transmit/receiver base station having a plurality of transmitters for transmitting a “pilot” signal to synchronize remote oscillators.

Shimp (USPN 4,494,138) – Discloses a segmented upstream management system for a bi-directional cable TV system.

Stokes (USPN 3,778,716) – Discloses a community antenna television system wherein the receiver utilizes pilot signals in conjunction with a phase-locked loop to synchronize the local oscillator frequency with the microwave carrier frequency.

Takahama (USPN 4,569,084) – Discloses a CATV converter associated with a dual superheterodyne system.

Wang (USPN 6,160,571) – Discloses a CATV transceiver that comprises up-down converters and filters to facilitate the use of a cable modem.

Williams (USPN 6,151,559) – Discloses a method for testing for cable upstream and downstream systems to determine which nodes have high levels of undesirable energy in critical frequency bands.

Art Unit: 2614

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael W. Hoyer whose telephone number is (703) 305-6954.

The examiner can normally be reached on Monday to Friday from 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached at (703) 305-4795.

Any response to this action should be mailed to:

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Art Unit: 2614

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to customer service whose telephone number is **(703) 308-HELP**.

Michael W. Hoyer
April 19, 2004


JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600